

# SEARCH REQUEST FORM

## Scientific and Technical Information Center

Requester's Full Name: Thiem Phu Examiner #: 79425 Date: 1/28/04  
 Art Unit: 3739 Phone Number 305-0707 Serial Number: 10/0451036  
 Mail Box and Bldg/Room Location: CP2 5031 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

*Claim 1*

*nano material*

*process is found in prior art, not with nano materials*

*(particles, etc.)*

1. NPL

2. Case Law

<b>STAFF USE ONLY</b>		Type of Search	Vendors and cost where applicable
Searcher:	<u>John Sim</u>	NA Sequence (#)	STN _____
Searcher Phone #:	<u>308-4826</u>	AA Sequence (#)	Dialog _____
Searcher Location:	<u>EIC 370D</u>	Structure (#)	Questel/Orbit _____
Date Searcher Picked Up:	<u>1/20</u>	Bibliographic	Dr. Link _____
Date Completed:	<u>1/20</u>	Litigation	Lexis/Nexis _____
Searcher Prep & Review Time:		Fulltext	Sequence Systems _____
Clerical Prep Time:		Patent Family	WWW/Internet _____
Online Time:		Other	Other (specify) <u>West Law</u>

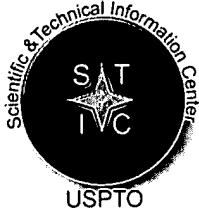
? ds

Set	Items	Description
S1	59026	NANOPARTICL? OR NANO() PARTICLE? ?
S2	1401784	SUBSTRAT? OR WAFER? ? OR UNDERLAY?
S3	74400	WIRING?
S4	10770	PHOTOMASK? OR PHOTO() MASK?
S5	54	SHADE() PATTERN?
S6	0	S3 AND S5
S7	153	S3 AND S4
S8	0	S1 AND S2 AND S7
S9	6133	S1 AND S2
S10	15	S9 AND S3
S11	11	RD (unique items)
S12	15046	BLACK(3N)(PIGMENT? OR COLOR? OR COLOUR?)
S13	8	S1(S)S12
S14	0	S3 AND S13
S15	8	S13 NOT S10
S16	4	RD (unique items)
S17	15	S11 OR S16
S18	725	(SHADE OR SHADING) (2N) (MATERIAL? OR PATTERN?)
S19	0	S1 AND S18 AND S12
S20	15	S2 AND S18
S21	0	S20 AND S3
S22	8	S4 AND S12
S23	0	S1 AND S22
S24	3	S2 AND S22
S25	23	S20 OR S22
S26	18	RD (unique items)
S27	18	S26 NOT S10
S28	0	S1 AND S18
S29	2	S4 AND S18
S30	2	RD (unique items)

? show files

File	2:INSPEC 1969-2004/Jan W3	(c) 2004 Institution of Electrical Engineers
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File	94:JICST-EPlus 1985-2004/Jan W3	(c)2004 Japan Science and Tech Corp(JST)
File	95:TEME-Technology & Management 1989-2004/Jan W2	(c) 2004 FIZ TECHNIK
File	99:Wilson Appl. Sci & Tech Abs 1983-2004/Dec	(c) 2004 The HW Wilson Co.
File	103:Energy SciTec 1974-2004/Jan B1	(c) 2004 Contains copyrighted material
File	144:Pascal 1973-2004/Jan W3	(c) 2004 INIST/CNRS
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File	233:Internet & Personal Comp. Abs. 1981-2003/Sep	

(c) 2003 EBSCO Pub.  
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(c) 2003 American Mathematical Society  
File 275:Gale Group Computer DB(TM) 1983-2004/Jan 30  
(c) 2004 The Gale Group  
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
(c) 1998 Inst for Sci Info  
File 647:CMP Computer Fulltext 1988-2004/Jan W3  
(c) 2004 CMP Media, LLC  
File 674:Computer News Fulltext 1989-2004/Jan W4  
(c) 2004 IDG Communications  
File 696:DIALOG Telecom. Newsletters 1995-2004/Jan 15  
(c) 2004 The Dialog Corp.  
?



# STIC Search Report

EIC 3700

STIC Database Tracking Number: 112925

**TO:** Thiem D Phan  
**Location:** CP2 5D31  
**Art Unit:** 3729  
**Friday, January 30, 2004**

**Case Serial Number:** 10/045036

**From:** John Sims  
**Location:** EIC 3700  
**CP2, 2C08**  
**Phone:** 308-4836

**john.sims@uspto.gov**

## Search Notes

Tim:

A search of Federal cases as well as USPTO decisions did not produce any relevant case law results.  
The non-patent literature results are attached. Please examine carefully.

16/7/4 (Item 1 from file: 95)  
DIALOG(R) File 95:TEME-Technology & Management  
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01661872 20020700816

**Nanotechnologie: la prochaine 'revolution' dans l'industrie textile?**

(Nanotechnologie: Die naechste 'Revolution' in der Textilindustrie?)

(Nanotechnology: the next 'revolution' in textiles?)

Smith, WC

TUT Textiles a Usages Techniques, v54, n44, pp16-19, 2002

Document type: journal article Language: Not Available

Record type: Abstract

ISSN: 1161-9317

**ABSTRACT:**

Nano-technologies are in fashion. They promise intelligent textiles with yet unsuspected functionalities, or revolutionary process for dyeing and finishing textiles. In the textile industry several nano-technology textile products are now commercial utilising the technology of companies like Nano-Tex LLC. Their process prevent staining of cotton fabrics, repel water, promote better moisture management in garments and improve the touch of synthetic fabrics by adding a cotton-like feel to synthetic fabrics. The Natick Army soldier Center has been working on nano-technology items for some time. One, in the form of electrospinning technology, can utilise most any polymer to create nano-size fibres in the range of 150 nanometers, though some report fibres in the 22 - 150 nanometer scale. Using this technology, a new fibre, designated M-5, has been created, which is infinitely stronger than steel with much lighter weight. Such fibres can be used for applications such as super light weight composites for aerospace, or improved ballistic protection. Electrospinning is also the basis for some Donaldson's filtration media. Their patented EON-Nanofibres are in the 250 nanometer range. University of California-Davis has applied for a patent to use nanotech to improve dyeing techniques. Typically, dyes must be dissolved in water twice for a blend of polyester and cotton. The new process uses carbon **black pigment** made of **nanoparticles** to transfer colour to the fabric in one step, saving energy and wastewater. Japanese scientists have already developed a lead in nanoscale circuits and have lead in nanoelectronics. The EU has the lead in nanomaterials, including such areas as cosmetics and textiles. (bilingual document: French/English)?

17/3/1 (Item 1 from file: 2)  
DIALOG(R) File 2:INSPEC  
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

7704830 INSPEC Abstract Number: A2003-18-6146-010, B2003-09-4360B-029  
**Title: Characteristics of electric devices made by direct nanoparticle spraying**  
Author(s): Ozawa, E.; Kawakami, Y.; Yoshida, T.; Iwashina, M.; Takahashi, K.  
Author Affiliation: Vacuum Metall. Co. Ltd., Chiba, Japan  
Journal: Proceedings of the SPIE - The International Society for Optical Engineering Conference Title: Proc. SPIE - Int. Soc. Opt. Eng. (USA) vol.4830 p.232-7  
Publisher: SPIE-Int. Soc. Opt. Eng,  
Publication Date: 2003 Country of Publication: USA  
CODEN: PSISDG ISSN: 0277-786X  
SICI: 0277-786X(2003)4830L.232:CEDM;1-2  
Material Identity Number: C574-2003-037  
U.S. Copyright Clearance Center Code: 0277-786X/03/\$15.00  
Conference Title: Third International Symposium on Laser Precision Microfabrication  
Conference Sponsor: SPIE; Commemorative Assoc. Japan World Exposition; U.S. Air Force Office of Sci. Res.; et al  
Conference Date: 27-31 May 2002 Conference Location: Osaka, Japan  
Language: English  
Subfile: A B  
Copyright 2003, IEE

17/3/2 (Item 2 from file: 2)  
DIALOG(R) File 2:INSPEC  
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

7621851 INSPEC Abstract Number: A2003-12-8120V-066, B2003-06-0587-020  
**Title: Interconnection of nanostructures using carbon nanotubes**  
Author(s): Homma, Y.; Yamashita, T.; Kobayashi, Y.; Ogino, T.  
Author Affiliation: Nippon Telegraph & Telephone Corp., NTT Basic Res. Labs., Kanagawa, Japan  
Journal: Physica B Conference Title: Physica B (Netherlands) vol.323, no.1-4 p.122-3  
Publisher: Elsevier,  
Publication Date: Oct. 2002 Country of Publication: Netherlands  
CODEN: PHYBE3 ISSN: 0921-4526  
SICI: 0921-4526(200210)323:1/4L.122:INUC;1-H  
Material Identity Number: M742-2002-018  
U.S. Copyright Clearance Center Code: 0921-4526/02/\$22.00  
Conference Title: Tsukuba Symposium on Carbon Nanotube in Commemoration of the 10th Anniversary of its Discovery  
Conference Date: 3-5 Oct. 2001 Conference Location: Tsukuba, Japan  
Language: English  
Subfile: A B  
Copyright 2003, IEE

17/3/3 (Item 3 from file: 2)  
DIALOG(R) File 2:INSPEC  
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

7589774 INSPEC Abstract Number: A2003-10-7960-027  
**Title: Polypyrrole latex: surface analysis by XPS**  
Author(s): Tarcha, P.J.; Salvati, L.; Johnson, R.W.

Author Affiliation: Abbott Labs., North Chicago, IL, USA  
Journal: Surface Science Spectra vol.8, no.4 p.312-16  
Publisher: AIP for American Vacuum Soc,  
Publication Date: Oct. 2001 Country of Publication: USA  
CODEN: SSSPEN ISSN: 1055-5269  
SICI: 1055-5269(200110)8:4L.312:PLSA;1-T  
Material Identity Number: 0913-2003-001  
U.S. Copyright Clearance Center Code: 1055-5269/2001/8(4)/312/5/\$18.00  
Language: English  
Subfile: A  
Copyright 2003, IEE

**17/3/4 (Item 4 from file: 2)**

DIALOG(R) File 2:INSPEC  
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

7562537 INSPEC Abstract Number: A2003-08-8715B-044, B2003-04-2230B-010  
**Title: Supramolecular architecture and molecular electronics. Four years later**  
Author(s): Nicolini, C.  
Author Affiliation: DISTBIMO, Genoa Univ., Italy  
Conference Title: Proceedings of the IEEE-EMBS Special Topic Conference on Molecular, Cellular and Tissue Engineering (Cat. No.02EX596) p.32  
Publisher: IEEE, Piscataway, NJ, USA  
Publication Date: 2002 Country of Publication: USA 211 pp.  
ISBN: 0 7803 7557 2 Material Identity Number: XX-2002-04040  
U.S. Copyright Clearance Center Code: 0-7803-7557-2/02/\$17.00  
Conference Title: Proceedings of the IEEE-EMBS Special Topic Conference on Molecular, Cellular and Tissue Engineering  
Conference Date: 6-9 June 2002 Conference Location: Genoa, Italy  
Language: English  
Subfile: A B  
Copyright 2003, IEE

**17/3/5 (Item 5 from file: 2)**

DIALOG(R) File 2:INSPEC  
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

7278375 INSPEC Abstract Number: B2002-07-2210D-007  
**Title: Fine-line conductor manufacturing using drop-on demand PZT printing technology**  
Author(s): Szczech, J.B.; Megaridis, C.M.; Gamota, D.R.; Jie Zhang  
Author Affiliation: Dept. of Mech. Eng., Illinois Univ., Chicago, IL, USA  
Journal: IEEE Transactions on Electronics Packaging Manufacturing vol.25, no.1 p.26-33  
Publisher: IEEE,  
Publication Date: Jan. 2002 Country of Publication: USA  
CODEN: ITEPFL ISSN: 1521-334X  
SICI: 1521-334X(200201)25:1L.26:FLCM;1-Q  
Material Identity Number: H313-2002-002  
U.S. Copyright Clearance Center Code: 1521-334X/02/\$17.00  
Language: English  
Subfile: B  
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**17/3/6 (Item 6 from file: 2)**

DIALOG(R) File 2:INSPEC  
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

5844535 INSPEC Abstract Number: A9807-6146-016  
**Title: Structure of fullerene soot and carbon deposits on graphite electrode from X-ray and electron microscopy data**  
Author(s): Sorokin, L.M.; Ratnikov, V.V.; Mosina, G.N.; Dyuzhev, G.A.; Bogdanov, A.A.; Hutchison, J.L.  
Author Affiliation: A.F. Ioffe Physicotech. Inst., Acad. of Sci., St. Petersburg, Russia  
Journal: Molecular Materials Conference Title: Mol. Mater. (Switzerland) vol.7, no.1-4 p.111-14  
Publisher: Gordon & Breach,  
Publication Date: 1996 Country of Publication: Switzerland  
CODEN: MOMAEO ISSN: 1058-7276  
SICI: 1058-7276(1996)7:1/4L.111:SFSC;1-4  
Material Identity Number: D322-98001  
Conference Title: International Workshop IWFAC'95. Fullerenes and Atomic Clusters  
Conference Date: 19-24 June 1995 Conference Location: St. Petersburg, Russia  
Language: English  
Subfile: A  
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17/3/7 (Item 1 from file: 8)  
DIALOG(R) File 8:Ei Compendex(R)  
(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.

05702671 E.I. No: EIP00115410542  
**Title: Preparation, microscopy, and flow cytometry with excitation into surface plasmon resonance bands of gold or silver nanoparticles on aminodextran-coated polystyrene beads**  
Author: Siiman, Olavi; Burshteyn, Alexander  
Corporate Source: Beckman Coulter, Inc, Miami, FL, USA  
Source: Journal of Physical Chemistry B v 104 n 42 Oct 2000. p 9795-9810  
Publication Year: 2000  
CODEN: JPCBFK ISSN: 1089-5647  
Language: English

17/3/8 (Item 1 from file: 94)  
DIALOG(R) File 94:JICST-EPlus  
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.

05621820 JICST ACCESSION NUMBER: 03A0729174 FILE SEGMENT: JICST-E  
**Micro-Patterning Technology by Metal Nano - Particles**  
HATADA KENZO (1)  
(1) Atomnics Lab. Inc., JPN  
Nihon Gazo Gakkaishi (Journal of Imaging Society of Japan), 2003,  
VOL.42,NO.3, PAGE.238-244, FIG.10, TBL.2, REF.4  
JOURNAL NUMBER: G0323ACS ISSN NO: 1344-4425  
UNIVERSAL DECIMAL CLASSIFICATION: 621.382.002.2 655.3  
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan  
DOCUMENT TYPE: Journal  
ARTICLE TYPE: Commentary  
MEDIA TYPE: Printed Publication

17/3/9 (Item 2 from file: 94)  
DIALOG(R) File 94:JICST-EPlus

(c) 2004 Japan Science and Tech Corp(JST). All rts. reserv.

05620095 JICST ACCESSION NUMBER: 03A0640125 FILE SEGMENT: JICST-E  
**Fabrication of Planar Metal Nanowire Array from 1D Chains of Nanoparticles**

HIRATA TAKUJI (1); SUGAWARA AKIRA (1); OUMI YASUNORI (1); SANO TSUNEJI (1);  
TERANISHI TOSHIHARU (1)

Jst-presto

Nippon Kagakkai Koen Yokoshu, 2003, VOL.83rd,NO.1, PAGE.512, FIG.1, REF.2

JOURNAL NUMBER: S0493AAY ISSN NO: 0285-7626

UNIVERSAL DECIMAL CLASSIFICATION: 544.72-14-16 539.23:669

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Conference Proceeding

ARTICLE TYPE: Short Communication

MEDIA TYPE: Printed Publication

**17/3/10 (Item 3 from file: 94)**

DIALOG(R)File 94:JICST-EPlus

(c) 2004 Japan Science and Tech Corp(JST). All rts. reserv.

05440148 JICST ACCESSION NUMBER: 03A0379451 FILE SEGMENT: JICST-E

**2 printed circuit board, mounting materials. Nano Paste.**

OYAMA KENSHU (1)

(1) Harima Chemicals, Inc., JPN

Denshi Zairyo(Electronic Parts and Materials), 2003, 5gatsugo bessatsu,  
PAGE.80-87, FIG.15, TBL.2, REF.9

JOURNAL NUMBER: F0040AAH ISSN NO: 0387-0774

UNIVERSAL DECIMAL CLASSIFICATION: 621.315.5 621.3.049.75

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Commentary

MEDIA TYPE: Printed Publication

**17/3/11 (Item 1 from file: 95)**

DIALOG(R)File 95:TEME-Technology & Management

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01661872 20020700816

**Nanotechnologie: la prochaine 'revolution' dans l'industrie textile?**

(Nanotechnologie: Die naechste 'Revolution' in der Textilindustrie?)

(Nanotechnology: the next 'revolution' in textiles?)

Smith, WC

TUT Textiles a Usages Techniques, v54, n44, pp16-19, 2002

Document type: journal article Language: Not Available

Record type: Abstract

ISSN: 1161-9317

**17/3/12 (Item 1 from file: 275)**

DIALOG(R)File 275:Gale Group Computer DB(TM)

(c) 2004 The Gale Group. All rts. reserv.

02683393 SUPPLIER NUMBER: 98003736 (USE FORMAT 7 OR 9 FOR FULL TEXT)

**Minnesota team cites 'first step' toward manufacturing technique -- DNA enlisted in nanoscale memory assembly.**

Johnson, R. Colin

Electronic Engineering Times, 49

Feb 24, 2003

ISSN: 0192-1541 LANGUAGE: English RECORD TYPE: Fulltext

John Sims EIC 3700 308-4836

WORD COUNT: 2581 LINE COUNT: 00213

17/3/13 (Item 2 from file: 275)

DIALOG(R) File 275:Gale Group Computer DB(TM)  
(c) 2004 The Gale Group. All rts. reserv.

02608705 SUPPLIER NUMBER: 86648262 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
**TR100/2002. (Mit's Magazine of Innovation: Technology Review).**  
Technology Review (Cambridge, Mass.), 105, 5, 65(26)  
June, 2002  
ISSN: 1099-274X LANGUAGE: English RECORD TYPE: Fulltext  
WORD COUNT: 19827 LINE COUNT: 01603

17/3/14 (Item 3 from file: 275)

DIALOG(R) File 275:Gale Group Computer DB(TM)  
(c) 2004 The Gale Group. All rts. reserv.

02461655 SUPPLIER NUMBER: 67379324 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
**Print Your Next PC. (Technology Information)**  
MIHM, STEPHEN  
Technology Review (Cambridge, Mass.), 103, 6, 66  
Nov, 2000  
ISSN: 1099-274X LANGUAGE: English RECORD TYPE: Fulltext; Abstract  
WORD COUNT: 2506 LINE COUNT: 00199

17/3/15 (Item 1 from file: 647)

DIALOG(R) File 647:CMP Computer Fulltext  
(c) 2004 CMP Media, LLC. All rts. reserv.

01260191 CMP ACCESSION NUMBER: EET20030224S0034  
**Minnesota team cites 'first step' toward manufacturing technique - DNA  
enlisted in nanoscale memory assembly**  
R. Colin Johnson  
ELECTRONIC ENGINEERING TIMES, 2003, n 1258, PG49  
PUBLICATION DATE: 030224  
JOURNAL CODE: EET LANGUAGE: English  
RECORD TYPE: Fulltext  
SECTION HEADING: TECHNOLOGY  
WORD COUNT: 1241

27/7/9 (Item 1 from file: 94)

DIALOG(R) File 94:JICST-EPlus

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02583444 JICST ACCESSION NUMBER: 95A0676632 FILE SEGMENT: JICST-E

**Mask substrate manufacturing method.**

ITO MASAYUKI (1)

(1) Toshiba Corp.

Toshiba Gijutsu Kokaishu, 1995, VOL.13,NO.51, PAGE.59, FIG.1

JOURNAL NUMBER: L0795AAJ ISSN NO: 0288-2701

UNIVERSAL DECIMAL CLASSIFICATION: 621.382.002.2

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Commentary

MEDIA TYPE: Printed Publication

ABSTRACT: A problem of semiconductor mask **substrate** manufacturing is the poor adhesion between conductive film for main body **patterns** and **shade** film for alignment marks on the outer regions. Therefore, penetration takes place in the etching process for both patterns. To prevent the penetration, TaO film is overlaid on SnO conductive film and CrxOy/Cr outer region shade film is laminated on it. The outer region work is followed by main body film forming and alignment mark etching.

27/7/10 (Item 2 from file: 94)

DIALOG(R) File 94:JICST-EPlus

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02545495 JICST ACCESSION NUMBER: 95A0396394 FILE SEGMENT: JICST-E

**Phase shift mask substrate .**

SHIGEMITSU FUMIAKI (1)

(1) Toshiba Corp.

Toshiba Gijutsu Kokaishu, 1995, VOL.13,NO.25, PAGE.53-54, FIG.1

JOURNAL NUMBER: L0795AAJ ISSN NO: 0288-2701

UNIVERSAL DECIMAL CLASSIFICATION: 621.382.002.2

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Commentary

MEDIA TYPE: Printed Publication

ABSTRACT: It features in that the lower layer film of the device pattern formation section differs from the lower layer film of the circumference pattern in the halftone phase shift mask. For example, the lower layer film of tantalum double oxide is formed in the circumference and the lower layer film of carbon oxide silicon is formed in the halftone section. Thus material that provides good contact with the upper layer film is used for each of the lower layer films of two or more different **shading pattern** formed on the mask **substrate** to increase pattern forming capacity.

27/7/11 (Item 3 from file: 94)

DIALOG(R) File 94:JICST-EPlus

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01194494 JICST ACCESSION NUMBER: 91A0327617 FILE SEGMENT: JICST-E

**ITO PEP-less electrodeposition color filter.**

FUKUNAGA TETSUYA (1); YAMANAKA HIDEMINE (1); KOSEKI TOSHIHIKO (1); UEKI

TOSHIHIRO (1)

(1) IBM Japan Ltd.

Denshi Joho Tsushin Gakkai Gijutsu Kenkyu Hokoku(IEIC Technical Report  
(Institute of Electronics, Information and Communication Engineers),  
1991, VOL.90,NO.430(EID90 114-120), PAGE.37-41, FIG.5, TBL.3, REF.4

JOURNAL NUMBER: S0532BBG

UNIVERSAL DECIMAL CLASSIFICATION: 621.385:621.397

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

ABSTRACT: An electrodeposited tri-color filter for use in a full color LCDs was proposed in 1983. Since this color filter was deposited on finely patterned ITO electrodes, ITO etching process was inevitable and the manufacturing yield has become a issue. To solve this problem, a new electrodeposited tri-color filter was developed. This tri-color filter was electrodeposited on the ITO electrode which was masked with **pigment** -dispersed polymer **black** matrix and a positive photoresist. The black matrix consisted of photosensitive acrylic polymer and organic **pigment** mixture because carbon **black** had low electrical resistivity. Because a Photoresist No.87 which had high photosensitivity after thermosetting was adopted, second and third electrodeposition were carried out without additional positive photoresist coating process. Therefore, the coating process which reduced process-yield was just two times. Furthermore, the new process had other merits such as high through-put because electrodeposition speed was 10sec/color. The electrodeposited tri-color filter for 10.4-in.-Diagonal 512 Color TFT-LCDs was fabricated with 25.0% luminous transmission efficiency and 57.4% NTSC gamut. (author abst.)

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